

R. A. CHASE.
NIGHT LATCH.
APPLICATION FILED JUNE 14, 1909.

943,216.

Patented Dec. 14, 1909.

Fig 1

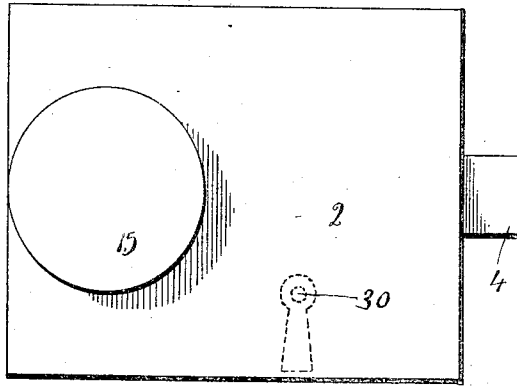


Fig 2

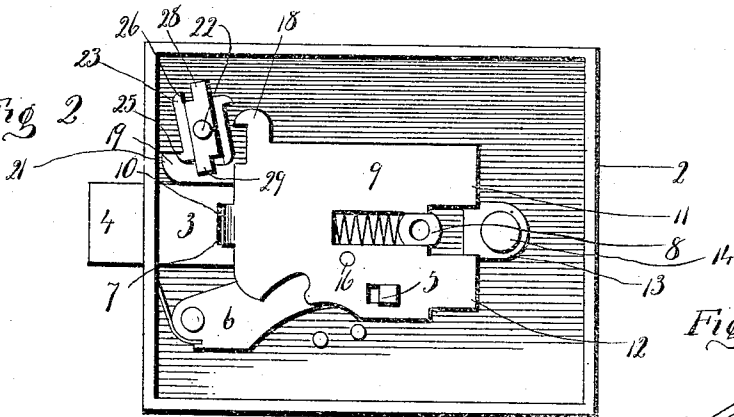


Fig 3

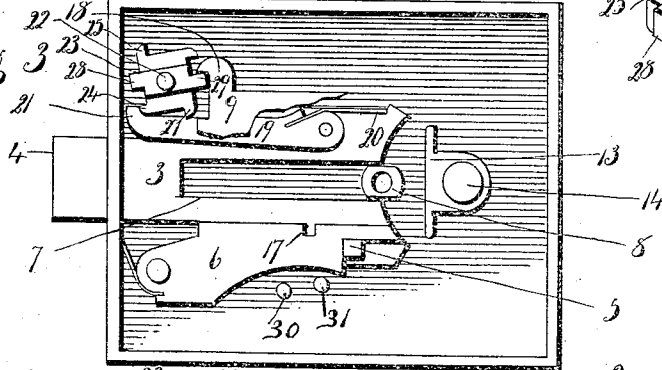


Fig 4

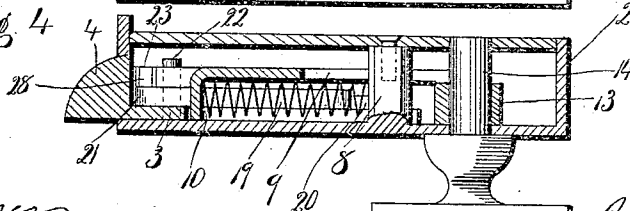
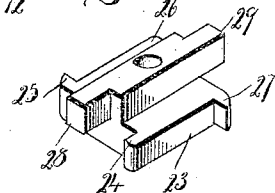


Fig 5



Witnesses
C. J. Reed.
C. L. Reed.

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UNITED STATES PATENT OFFICE.

RAYMOND A. CHASE, OF WATERBURY, CONNECTICUT, ASSIGNOR OF ONE-HALF TO
WALTER H. WHITNEY, OF WATERBURY, CONNECTICUT.

NIGHT-LATCH.

943,216.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RAYMOND A. CHASE, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Night-Latches; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a front view of a night latch embodying my invention. Fig. 2 a view with the inside of the case removed, showing the latch in position when the door has been opened. Fig. 3 a similar view with a portion of the stump broken away, showing the button in the locking position. Fig. 4 a transverse sectional view of the latch. Fig. 5 a perspective view of the locking-button detached.

This invention relates to an improvement in night latches, the object being to provide a latch which when the door is closed, will be a positive lock and yet which will permit the door to be readily closed; that is, when the door is closed the latch bolt is locked in position, yet as the door is closed the latch bolt will yield to permit the door to close easily; and the invention consists in the construction hereinafter described and particularly recited in the claims.

In carrying out my invention I employ the usual latch case 2 which may be of either rim or mortise type.

Mounted to slide in the case is a latch plate 3 having the usual latch bolt 4 which projects beyond the front face of the case. The latch plate 3 is adapted to be turned by a key in the usual manner so as to retire the bolt. The key may be supported by the usual key post 30 and be limited in rotation by the usual stop pin 31. The latch plate 3 is formed with a longitudinal clearance slot 7 to clear the central screw-post or stud, and to provide for the engagement with the latch plate of the stump 9 which has an inwardly projecting finger 10 entering the slot 7. At its rear end the stump is formed with downwardly projecting fingers 11 and 12 which engage with the arms of a roll-back 13 mounted on the spindle 14 of a knob 15. The latch plate also carries a stump post 5

which extends through a clearance slot 32 in the stump, the slot being longer than the width of the post 5 so that the stump may have a slight movement independent of the latch plate. This stump is also provided in its inner face with a locking pin 16 which is engaged by locking notches 16 in the usual key tumbler 6, so that the latch plate cannot be moved unless the right key is used. With the right key the tumblers 6 are not moved and so that the latch plate is engaged by the key and moved rearward. The stump is also formed at its forward end with an upwardly projecting hook 18. Mounted upon the latch plate near the rear end is a dog 19 the forward end of which is raised by a spring 20, and the said forward end is formed with a nose 21. Mounted upon a stud 22 in the case at a point above the dog 19, is a button 23. This button is substantially square and is provided with projections 24, 25, 26 and 27, one at each corner in position to be engaged by the nose 21 of the dog 19. Projecting from two opposite sides of the button are shoulders 28 and 29 which turn in the path of the hook 18, these shoulders being built up above the plane of the main portion of the button.

In Fig. 3 of the drawings I have shown the latch as in the position when the door is closed, and one of the points as 24 is engaged by the nose 21 of the dog 19, and the shoulder 29 is engaged by the hook 18 so that the bolt is locked against inward movement by any means other than the key or the knob. A proper key to move the tumblers 6 will unlock the stump and allow the latch bolt to be withdrawn. The inward movement of the bolt either by a key or by turning the knob, will first move the stump rearward so that the hook 18 will clear the button and the continued movement of the bolt will give a quarter turn to the button 23 and bring it to a position shown in Fig. 2 of the drawings in which the point 25 is engaged by the nose 21. In this position the bolt is free to be moved rearward as the shoulders 28 and 29 stand in a substantial vertical position, and hence neither engage with the hook 18. In this position the door can be closed in the usual manner, and the bolt 4 coming in contact with the usual strike-plate, will be forced inward so that the door closes without obstruction; but in moving inward the nose 21 engages with the point 25 and gives

the button another quarter turn so as to bring the projection 26 into engagement with the nose 21, and the shoulder 29 into engagement with the hook 18, the parts again standing in the position shown in Fig. 3 of the drawings except that the button has been turned half around, and the door is locked against possible opening except by a key or by turning the knob. It will thus be seen that the movement of the stump either by a key or knob releases the button which is then free to be turned by the dog in the continued rearward movement of the latch plate, and the dog is given a quarter turn each time the latch plate is moved inward and so that in opening the door the dog is given a quarter turn, and in closing the door is given another quarter turn so as to bring the button into locking position and thereby prevent the opening of the door except by a key from the outside or by the knob from the inside.

I claim:—

1. In a night latch, the combination with the latch plate and stump plate, of a locking-button adapted to be turned to engage with the stump to prevent the inward movement of the latch plate.

2. In a night latch, the combination with a latch plate carrying a spring dog having a nose at its outer end, a stump plate formed with a hook, a locking-button mounted in the case and having projections to engage with the nose of the dog, and shoulders to engage with said hook.

3. In a night latch, the combination with the latch plate carrying a spring dog having a nose at its outer end, a stump plate formed with a hook, a square locking button mounted in the case and formed at each corner with a projection adapted to be turned into engagement with the nose of said dog and with two shoulders adapted to engage with said hook, whereby in two positions of the button the latch plate is locked, and in intermediate positions free to be moved backward.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

RAYMOND A. CHASE.

Witnesses:

THOS. F. LAWLOR,
EDWARD L. SEERY.